

# THE PYRAMID OF MEANING

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In this paper we present a pyramidal theory of meaning, where beside, or better, upside, a triangle thing-idea-word, we have something we are calling “notion”, the apex of the pyramid, which encompasses the three aspects of the triangle. We present many examples and discuss other theories.

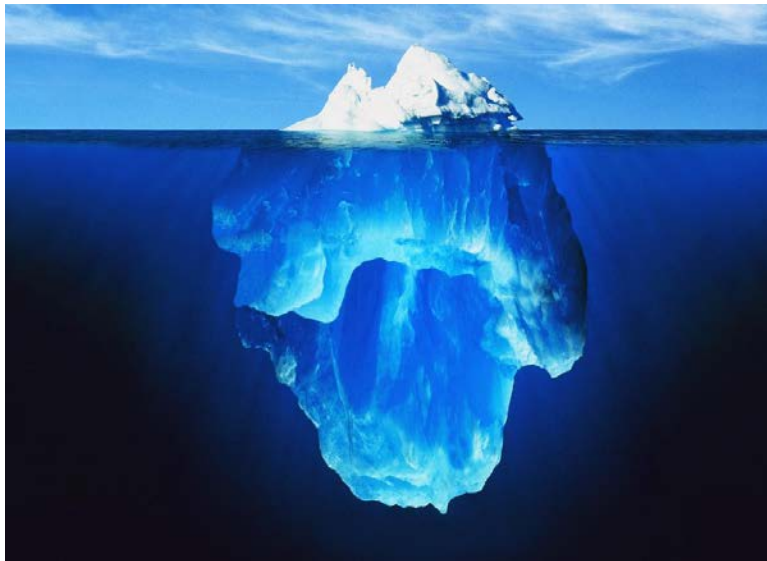


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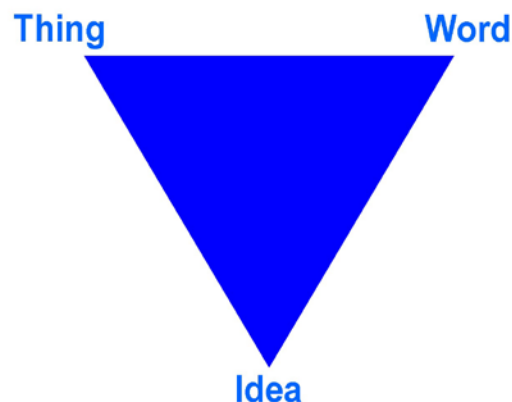
## 1. Giving shape to a theory of meaning

What we are talking about here is the relation between thought, language and reality. This is a deep topic. One may think that in a 25-page paper we can only tackle the tip of the iceberg. But we will not be superficial in this way. Moreover, an iceberg has a rather monstrous configuration. We don't want to shape a theory in this way.



We are looking for better surfaces. Our starting point, or better, base, is a triangle expressing the relations between thought, language and reality. And on this base, we will erect a pyramid having at its top a fourth notion that we simply call “notion”.

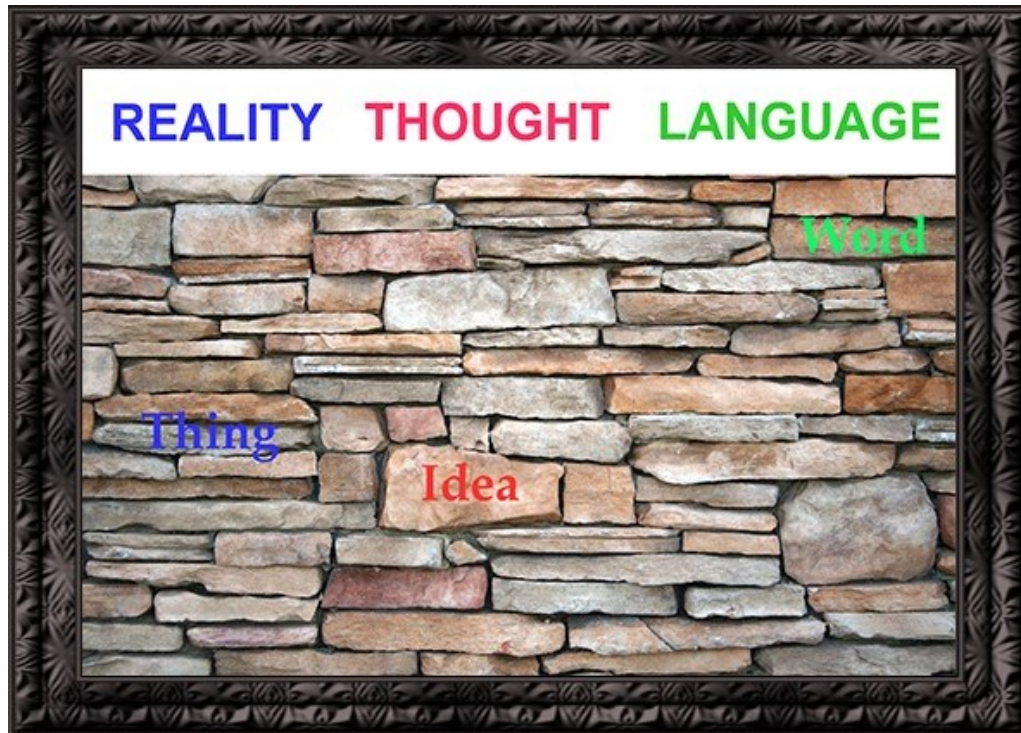
We consider the following triangle:



We kept the blue but not the terminology. That's a question of sensitivity, which can be rationally explained.

We were talking about thought, language and reality and we are now facing idea, word and thing. Thought has turned into idea, language into word and reality into thing. What is going on?

We want to be more precise, more concrete, more objective. More analytic. We consider that thought is made of ideas, language made of words, reality made of things. In some sense it is easier to start with the parts than with the wholes.



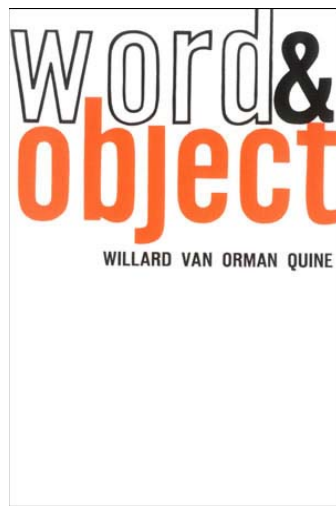
A brick of thought can also be called a thought. Due to this homonymy we prefer to talk about “idea” than “thought” for the piece. One may consider that the atomic entities of language are signs rather than words. But we prefer to stick to words because it is more human, specific and neutral. Concerning reality, one may claim that there are things which are not real. But “thing” is a word. We don’t believe in an absolute meaning of a word. Since we are developing a theory, we are necessarily normative. According to the theory presented here, a thing is always real, part of reality.

We don’t consider that an idea is a thing, a word is a thing, or an idea is a word (or vice versa). Our triangle is a triangle of *contrariety*. That’s by the way the reason why it is blue. In a triangle of contrariety each pair is exclusive and the three corners are exhaustive (about that see our 2012, 2016 and 2018 papers on the theory of opposition).

## 2. Two dyads

Before comparing our triangle with other triangles, we will consider two dyads related to two famous philosophers of the 20th century: Heidegger (1889-1976) and Quine (1908-2000). These two philosophers are symbols of two traditions, often represented as dichotomic or/and antinomic: analytic philosophy vs. continental philosophy.

The younger, Willard Van Orman Quine, started his carrier as a logician. After writing many papers and books in logic, he started a carrier as a philosopher by writing and publishing, after ten years, in 1960, a book called *Word and Object*.



The title of the book says it all: there are no ideas. A symptomatic exclusion of ideas by Quine is the case of propositions. He defends the “idea” that on the one hand we have some sentences, on the other hand reality but no purgatorial notions in between (for a discussion about that, see our 2007 paper “Sentence, proposition and identity”).

As also manifested by the title, Quine rather uses the word “object” than the word “thing”. It is in the spirit of his philosophy. “Thing” would be too undetermined. An object is something more objective, at least syntactically. There is a famous horror movie titled *The Thing*. *The Object* will not do it.

An object is in general understood as something concrete, like a revolver. But a revolver is only a specific kind of object, a man-made object. Do objects correspond only to this poetic (cf. [τοιέω](#)) meaning? Or can we also consider women as objects? Thoughts as objects? Is it a crime? It depends: are we by doing so treating a woman or a thought as a revolver? That could indeed be really dangerous! Or are we generously enlarging the semantic scope of “object” to any thing?



In *Die Frage nach dem Ding*, a course given in 1934-35, the black forest philosopher Martin Heidegger makes two important points: in Ancient Greece there was no general word for things, the word “Ding” has the same root as the word “Denken”.

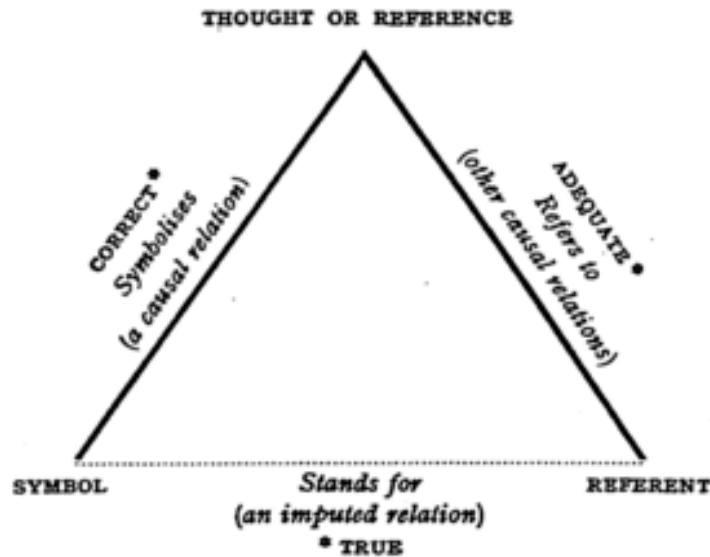
The second point is also true in English. The pair *Thing/Think* has in fact the same etymological origin as the German pair *Ding/Denken*. And “thing” is a way to talk about anything ... English language is pushing in this direction, but it is not the only universal language. In Portuguese we also have *coisa* and *qualquer coisa*.



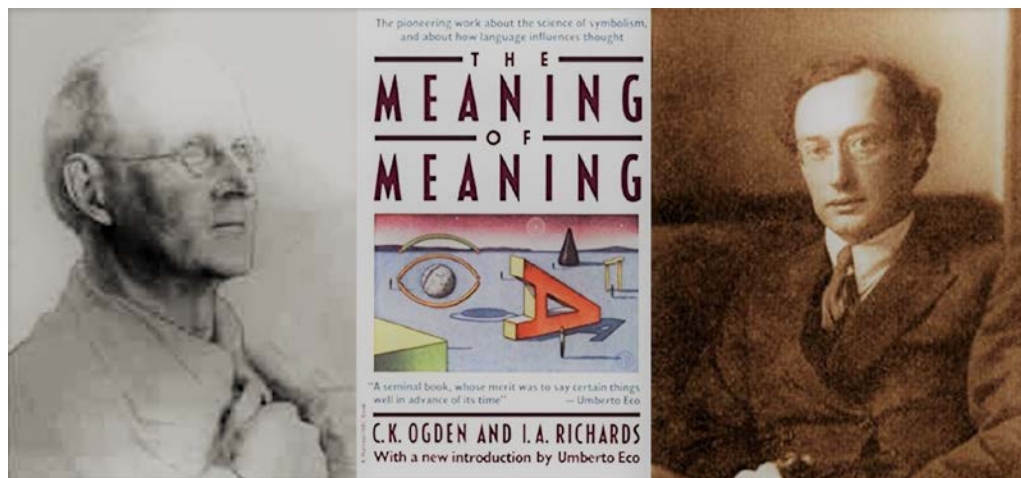
There is certainly a close connection between things and thoughts. It is not clear that we can think about a thing which cannot be thought. Maybe we can create a word for it, “thing-in-itself”. But a word is not in itself a thought.

### 3. Four triangular theories

Another famous triangle that has been presented is the following:

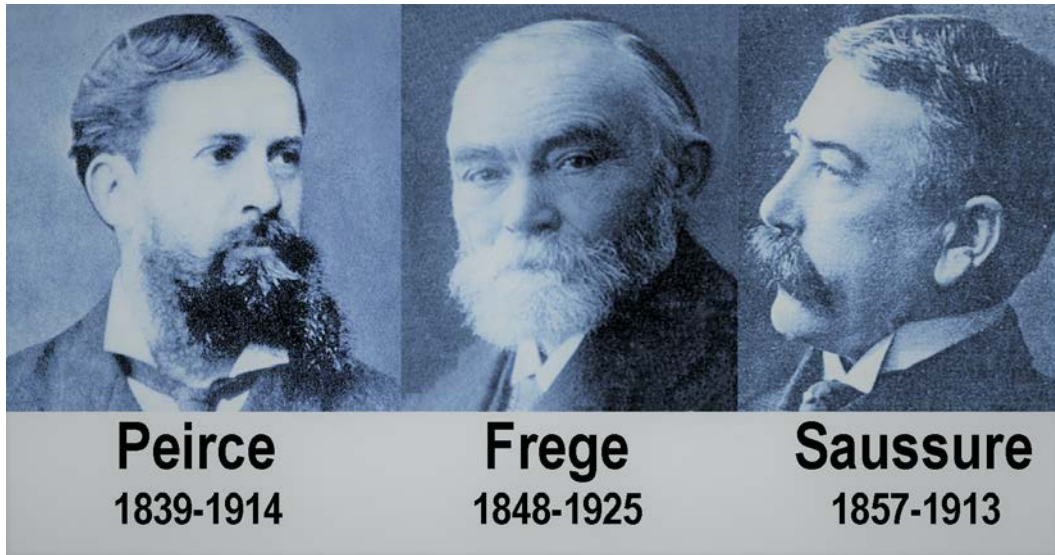


This triangle is due to Charles Kay Ogden (1889-1957) and Ivor Amstrong Richards (1893-1979) in a book entitled *The meaning of meaning* originally published in 1923.



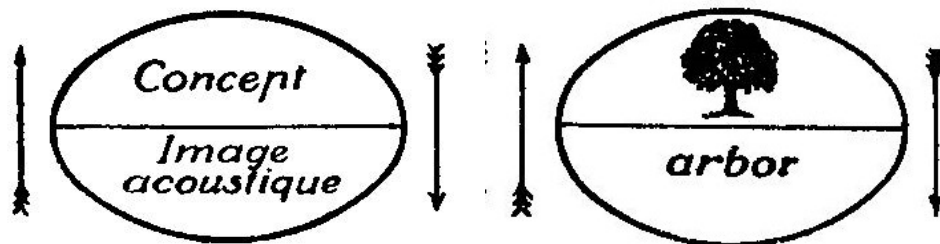
This figure is not named in their book *triangle of meaning* but *triangle of reference*. This can be justified by the fact that in this triangle we have a pair reference/ referent.

Let's compare this triangle with three other triangular theories presented by three wise men.



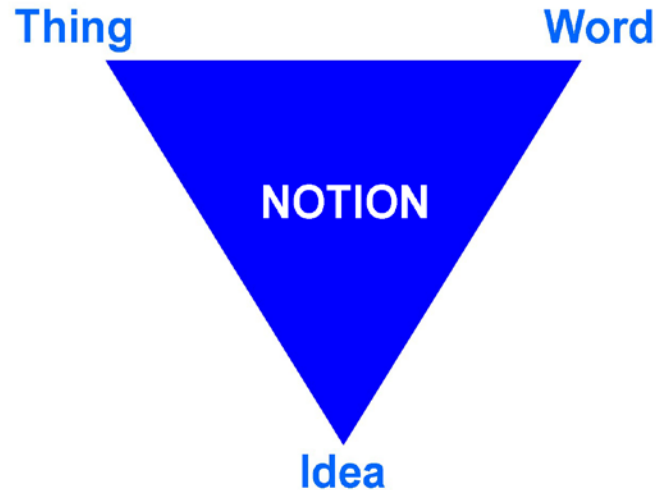
Ogden/Richards's pair reference/referent is quite different from Saussure's pair signifier/signified, which would rather correspond to the pair symbol/thought(or reference) of the triangle of reference.

Saussure has also a third notion, the sign itself. But he did not promote a triangle because the sign is the signifier and signified together. The signifier and the signified are two faces of the same coin, the sign.



This is not a standard view of the sign as Saussure explains: “Ambiguity would disappear if the three notions involved were designated by three names, each suggesting and opposing the others. I propose to retain the word *sign* to designate the whole and to replace *concept* and *sound-image* respectively by *signified* and *signifier*; the two terms have the advantage of indicating the opposition that separate them from each other and from the whole of which they are parts. As regards *sign*, if I am satisfied with it, this is simply because I do not know of any word to replace it, the ordinary language suggesting no other.” (1916)

We are doing something analogical: as Saussure gives a name for the dyad signified/signifier, *sign*, we give a name for the triad thing/word/idea, *notion*.



We will not call our triangle *triangle of reference* because we emphasize neither referent, nor reference. We could name it *semiotic triangle*, but we prefer to simply call it *triangle of meaning*, because it is more neutral, more universal, more ... meaningful.

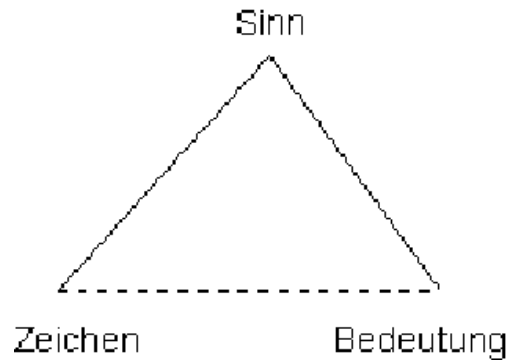
Semiotics is still a rather esoteric science, divided in various schools, not to say sects, each with a master, not to say a guru: Peirce, Greimas, Eco, Barthes, ... This is reflected in a variation of terminologies: *semiotics*, *semiology*, *semantics* (originally introduced by Bréal in 1897), *philosophy of language*, *linguistics* itself.

And also what prevails in semiotics is the notion of sign and although a sign is defined as “any object, action, event, pattern, etc., that conveys a meaning”, we prefer to emphasize *meaning* itself rather than its bearer, the *sign*. Moreover, we are not only, or mainly, interested in one corner of the triangle. Our vision is circular and interactive:



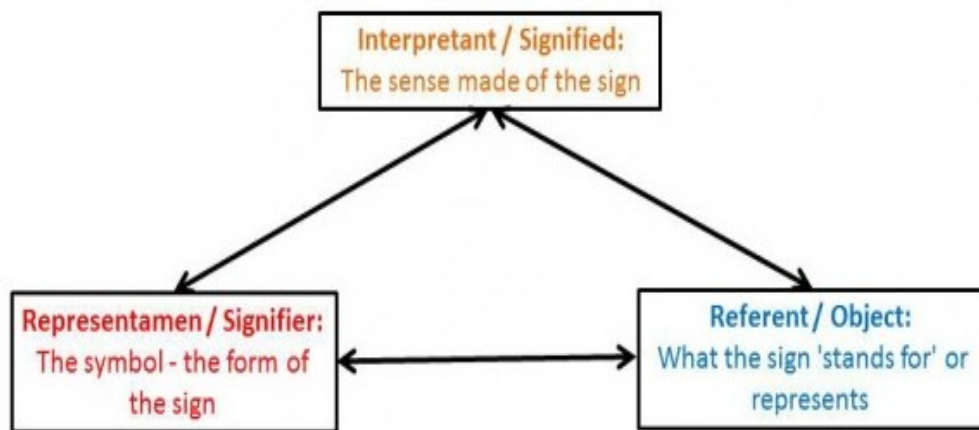


Another apparent triangular theory is the one of Frege. Here we have: sign (*Zeichen*), meaning (*Sinn*) and reference (*Bedeutung*). Frege characterizes the meaning of the sign as the way the reference is given. We can have different meanings for the same reference. The reference can be identified with the set of all its meanings (see Beziau 1999).



The above triangle was not drawn by Frege and its theory is like Saussure's theory, more dyadic, with the pair meaning/reference as the center. But Frege does not consider that the sign is a name for this pair, and his pair is quite different from the pair of Saussure, where the meaning is furthermore provided by interaction with other pairs (structuralism).

Finally, let's have a look at Peirce's triangle, also not drawn by Peirce himself:



Peirce's theory is more triangular than Saussure and Frege's approaches. The main difference with our theory is that it gives emphasis to the sign, on which the second term, the sense made of the sign, strongly depends, and that there is not a name encompassing the three elements of the triad.

#### 4. Examples of triangles of meaning

To have a better understanding of how our triangle of meaning works, we will examine in this section various examples.

##### 41. Thing-triangle

In a thing-triangle reality dominates. But there are various kinds of reality. Let's start with one of the most singular realities: the sun.



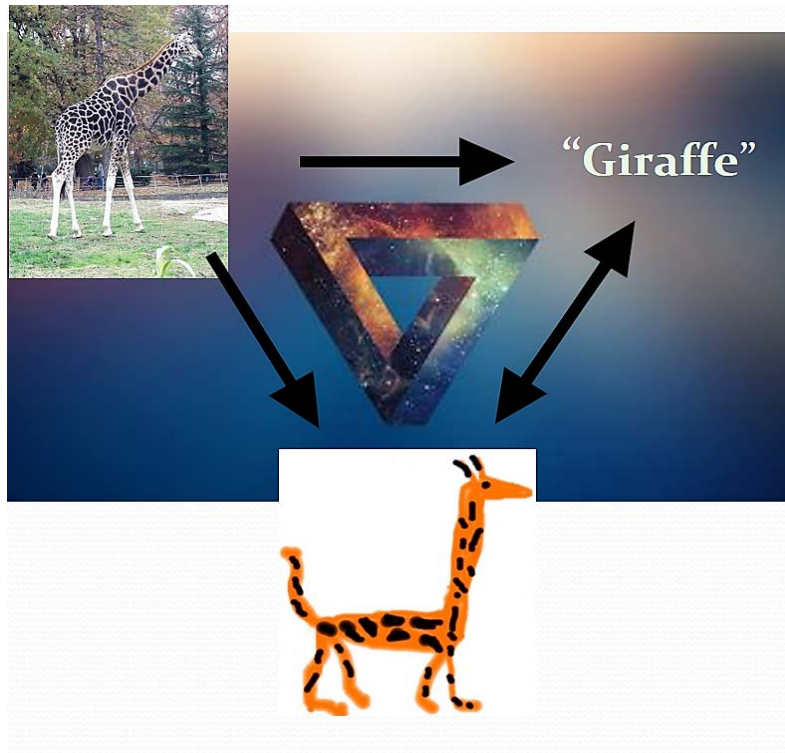
The sun is a reality that everybody can see, except the blind. There is a word attached to it that varies across the universe of languages. The word is mainly attached by ostension. As Quine puts it: “some words can be learned as one-word sentences through direct ostension of their objects” (1960, p.15).

The idea of the sun has many faces, ranging from a Star to a God. It can be more or less objective. And this can be a cultural objectivity or a scientific objectivity. The idea of the sun reflects on the thing itself, we don't see it as before.

From the perspective of contemporary science, the sun is nowadays not the only one star, there are many suns ... In other words, “Sun” is not anymore a proper name, like “Napoleon Bonaparte”. But anyway, our triangle of the sun corresponds to how its usual meaning is working.

Let's now have a look at a reality which directly appears as a many headed reality: the giraffes. Giraffe is a kind of animals, that can be considered as a species. The idea of a giraffe can be expressed by a pictogram and/or a definition: “a quadruped with a long neck and dark patches”. There is a strong correspondence between the pictogram and the

definition. Such pictogram can rightly be called an *ideogram*, like a Chinese character. Because it corresponds to the idea we have of the giraffe, which is a simplification of reality. In this case, from the thing(s) we can go directly, either to the idea(ogram), or to the word. In books for children the two go hand by hand. In Chinese language the written word is a stylized version of the ideogram.



If this idea really grasps the reality behind all this variety of animals, and if there is such a reality, are two important questions. Regarding the first question, it is clear that the common idea presented in our diagram or/the definition is just a childish idea, based on appearances.

In a Linnaean perspective the giraffe is understood via taxonomy. It is a way to catch the animal by a net which is a weaving of words and classifications, a nomenclature. According to such a bricolage *rational animals* are *homo sapiens* (see our 2017 paper “Being aware of rational animals”; and about the theory of classification, see Parrochia & Neuville 2013). Plato himself was hunting at a higher level using a more rational tool, dichotomy (cf. his dialogue the *Sophist*), to catch the proper idea.

Ideas were originally appearances (see Motte et al. 2003). Plato turned them into objective realities behind appearances that we can access only with our reason. They then became part of God’s mind with St Augustine before Descartes put them in our own minds.

In the *Theaetetus* Plato gave the example of the mud. Mud is neither a reality like the sun, that can be single out, nor a multi-reality like the giraffe. It is a *substance*, which can be grasped with the idea “earth mixed with water”.



“Substantive” is a word for a kind of words. Other words are articles, adjectives or verbs. Our triangle of meaning, in its brick version, is focusing on substantives. But we have nevertheless preferred to use “word”, because “substantive” is too close to “substance”, it does not sufficiently distinguish between word and object. Substantives can also be called “nouns”, or “names”. For our purpose, “noun” is too much grammatical, and “name” too much nominative.

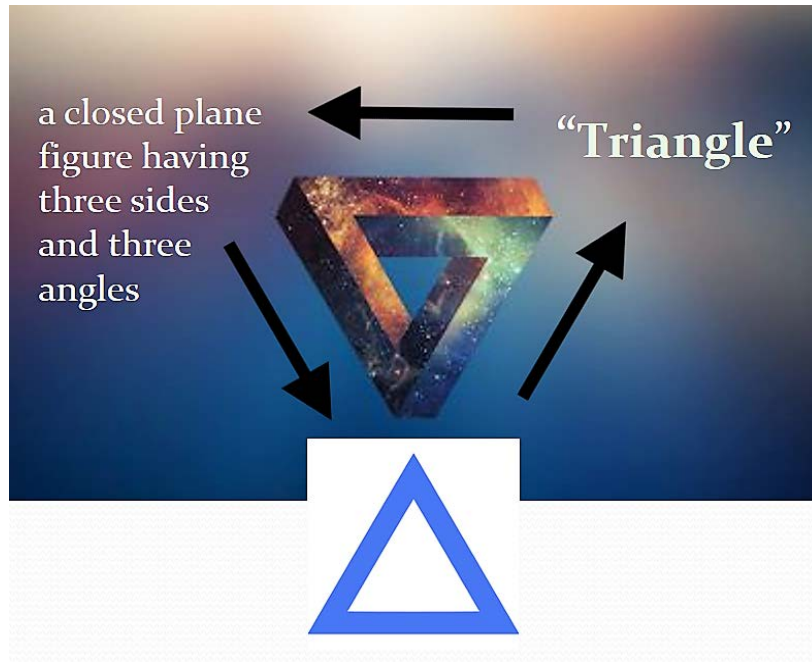
We can first grasp the thing with an idea and then give a name to it, invent a name if there is not yet one, this is often done in science. In mathematics, we can even directly start with the idea.

#### 42. Idea-triangle

In the idea-triangle, the idea is more important than the word or the reality if any. We put it therefore on the top left corner:

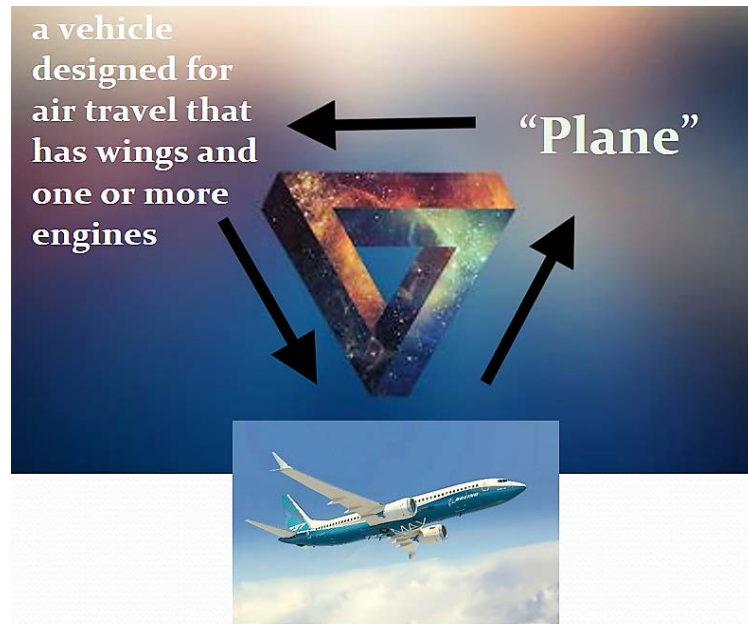


Let's consider the idea of a triangle: "a closed plane figure having three sides and three angles". We could have considered a circle. But the idea of a circle can be seen as emerging or been extracted from reality. Then the left arrow will have been in the other direction. For the triangle this is more difficult.

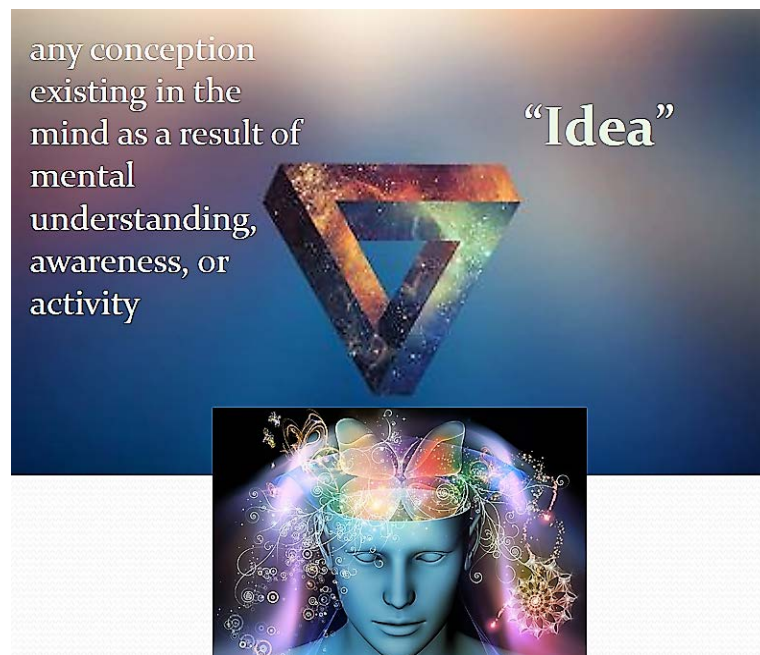


However, to explain what a triangle is, it can be easier to first draw a figure. But in this case this figure is at the same corner than the idea, the definition, as in the case of the giraffe previously studied. It is an ideogram. The picture we have here at the bottom is supposed to be the thing itself, or a photo of it, like the photo of the giraffe. It is not necessarily clear what kind of reality is the triangle as a thing. What we know is that it is more like a species (giraffe) than a singular thing (the sun). Moreover, in the same way that the idea of a dog does not bark, the idea of a triangle is not triangular, it has no sensible attributes.

We can have an idea of a chiliagon, as a definition (a polygon with one thousand sides), not as a mental image. We cannot *imagine* a chiliagon, as stressed by Descartes (for more discussion about imagination see our 2016 paper "Possibility, Imagination and Conception"). However, we can produce a picture of it, using for example a computer program. This is then a real chiliagon. We can say that it is the product of our mind, our thought and the computer. But such a product became real and it has its independence, its autonomy. Like a plane.



This idea-triangle of a triangle has a self-referring aspect, but a rather loose or superficial one. A selfisher phenomenon appears is the idea-triangle of an idea. A not so obvious case, but still manageable. There is nothing tragic considering that an idea is an idea. It is in some sense circular but not viciously.



What is the idea of an idea? This is what we are investigating here, relating ideas to words and things. A standard definition is: “any conception existing in the mind as a result of mental understanding, awareness, or

activity”. Now, what is the reality corresponding to the idea of idea, to the word “idea”? It is not clear, but we can have an idea of it ... It can range from mental images to some more brainy stuff, through some more spiritual “things”.

In the above picture we did not put arrows, because this is typically a case where it is difficult to see a starting point.

### 43. Word-triangle

The word-triangle is when the word-corner is the most important of the three. We put it therefore on the top left position:



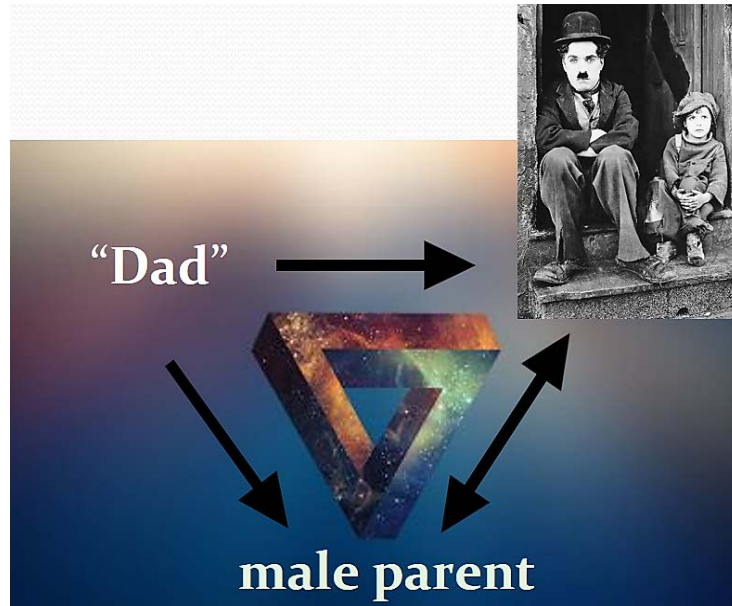
Most of the time we don't know what we are talking about. Our thought is conducted by words and it is no clear to which reality it corresponds, if any. But this nonsense is rather produced by combination of words, a correct syntax giving the impression of meaning, as famously denounced by Wittgenstein criticizing traditional philosophy. A denunciation which received the extended support of Carnap in his famous 1931 piece entitled “The elimination of metaphysics through logical analysis of language”.

This phenomenon takes place not only at the level of formation of sentences, but also at the level of formation of words, by combination of morphemes, like with “metaphysics” or , even better, “pataphysics”.

Poetry can sometimes even go deeper, by playing with meaningless entities such as syllables or letters. In the case of novels, this is another story. It is not that we are merged into nonsense. Words can be used to create a fictional reality, a meaningful artificial world, but this is by combination. Difficult to create a world with one word.

We want to consider here the case of just a brick in the wall of language, a standard brick. A natural word, which is more important than the

corresponding thing and idea. Is it rare, difficult to find? One of them is used by millions of people every day. This word is “dad” or its variations in other languages which have a common ground (see Blasi et al. 2016).



Everybody thinks s/he knows what s/he/it means. But what is exactly the meaning of this word? For each person, except the case of brotherhood or sisterhood, the “thing” is different. Can we therefore say that the meaning is the same? And, if not, why using the same word?

It is true that every man calls his car a car, he doesn’t give it a proper name, even if each car is different. But in this case “car” is not used as a name to refer to a particular thing, unless we put a personal pronoun in front of it: “my car”. We can also say “my dad”. But we are talking here about “dad” alone. It works like a name, but not like a proper name, say “Julius Cesar”, because it is not proper.

In the case of a proper name, except in fictional cases, we first have the entity, then the name, it is a thing-triangle, even if the name can become at some point very important, a Big name like “Brigitte Bardot”, or been created to help make the entity (in)famous, like “Sid Vicious” (originally *John Ritchie*). In the case of “dad”, the name in some sense comes before the entity. Our learning of the entity is through the word or, better, we construct the entity through the word. But not out of nothing. It is like the blue color born out of the interaction between our eye and reality.

A similar but stranger case is “I”. In the case of “I” it is less clear what is the thing, if any, even if we are supposed to be it. And do we have any idea



of it, besides a selfie? One can say: “I am Steve Jones”. But then he is just identifying a word with other words: “I” = “Steve Jones”.

And next to “I”, there is “God”. In the case of “God”, we generally don’t have direct contact with the thing and it is very difficult to have an idea of what it is. We can try to think God through an idea, but then it is a product of our mind, which is rather contradictory. In the case of our personal father, there is at least an interaction with a reality.

But is God just a word? Or do we have access to God only through a word? In the Bible it is written (John 1:1): “In the beginning was the Word, and the Word was with God, and the Word was God”. But the word “word” here is a translation of the word “logos” which has a deeper meaning than the usual “word”.

In the *Meditations* Descartes proves the existence of God by arguing that we have in our mind the idea of actual infinite and it could not have been created by ourselves. The validity of this proof is not obvious because on the one hand, one may claim that our thought can create many many many things, an infinity of transfinite numbers, on the opposite hand one may claim that we don’t really have an idea of actual infinite.

Let us note that the word “infinity” is a syntactic construction: there is the word “finite” to which the prefix “in” is added. This process may correspond to an operation of thought or a more verbal construct. When we have a negation considered as a logic operator operating on a concept, such as *not finite*, it is less ambiguous. In the case of *infinite* it is not completely clear if we have originally here a thing-triangle, like in the case of the triangle-triangle, or if it is a word-triangle, or something in between.

## 5. The Top Notion

As Charles Kay Ogden puts it: “The belief that words have a meaning of their own account is a relic of primitive word magic, and it is still a part of the air we breathe in nearly every discussion.”

On the other hand of the spectre we have a position like the one of Blaise Pascal saying : “I never quarrel about a name, provided I am apprised of the sense in which it is understood” (“Je ne dispute jamais du nom, pourvu qu’on m’avertisse le sense qu’on lui donne” - *Première Provinciale*).

Pascal’s position can be seen as representative of a mathematical approach where the meaning of words is clearly given through definitions and/or axioms. But this methodology, even in mathematics, works only to a certain point. Mathematicians are trying to find good names, not just arbitrary names. This was done in particular by Bourbaki. A famous story is

about a notion promoted by Henri Cartan which was first simply called a “boum” and then became a “filter” (see Audin 2012).

In general it seems important to give the right name for the right thing. But this can properly be done only if we also consider the third part of the triangle of meaning: the idea. If not, we can face the case of arbitrary baptisms, like it often happens with human beings. Naming without necessity is sinking into nonsense.

A good articulation of the three corners of the triangle is fundamental for producing the meaning of a word. But then we are not just talking about a word or an idea, or a thought, we are talking about the three together. This is what we call the *notion*. By contrast to the word, when talking about the notion, we don't use quotation marks. When we are talking about fear, this involves the word, the thing and the idea. Fear does not reduce to “fear”, and it is not just the reference, denotation or signified corresponding to “fear”. There is the reality of fear, but this reality is interacting with thought and language, the whole process is beyond these particular aspects.



To explain our choice of “notion”, we can ape Saussure in the following way: “I propose to retain the word *notion* to designate the whole and to replace *sign*, *reference* and *referent* respectively by *word*, *idea* and *thing*; the three terms have the advantage of indicating the opposition that separate them from each other and from the whole of which they are parts. As regards *notion*, if I am satisfied with it, this is simply because I do not know of any word to replace it, the ordinary language suggesting no other.”

But we are going further than Saussure because we are not considering the *notion* just as a triangle. As we have already pointed out, even if Saussure gave a name to the coin signifier-signified, *sign*, he did not put the sign out of it, constructing a triangle. In our case we are placing the notion

outside of the elements put together, above the triangle, at the top of a pyramid.



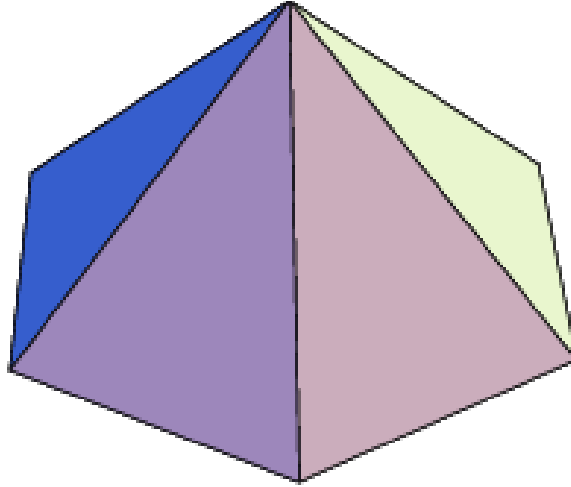
### 6. A Real Pyramid?

One could say that our pyramid of meaning is not a true pyramid because a real pyramid has a square base.



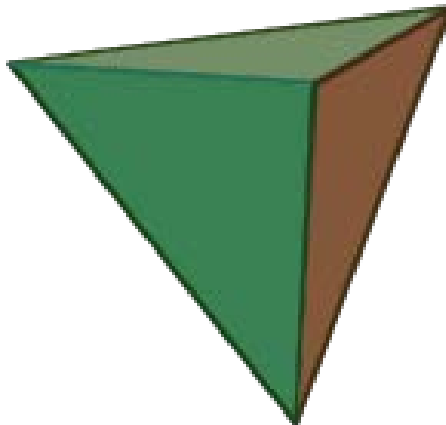
Our pyramid has a triangular base, it is a uniform polyhedron, a *tetrahedron*, one of the five Platonic solids. Mathematical speaking it is considered as a pyramid. A tetrahedron is indeed alternatively called a *triangular pyramid*. As a mathematical object, a pyramid is defined as a

polyhedron having as base a polygon and as faces triangles all joining at the apex. The basis of a pyramid can for example be a hexagon:



It can be useful in fact to expand our triangle-based pyramid into a hexagon-based pyramid, considering the hexagon generated by our blue triangle of contrariety, following Blanché's construction (see Blanche 1966, Beziau 2012). It would be fruitful to investigate the triangle of subcontrariety with the three corners: thing-word, thing-idea and idea-word. We will do that in a future paper.

A tetrahedron is perfectly symmetric (more symmetric than other Platonic solids, since it is a simplex), and in fact any of its vertices can be considered as the apex if we rotate it.



But we rather look at our structure of meaning as a physical pyramid where the TIW (Thing-Idea-Word) triangle is on the ground and the NOTION is in the sky. That's why it makes perfectly sense to talk about a *pyramid* of meaning.

## 7. What is the meaning of life?

Approaching the pyramid, you may encounter a sphinx asking you: *What is the meaning of life?* And she will not let you reach the pyramid if you don't give the right answer. What shall you say?

Note that this question is not the same as: *What is the meaning of "life"?* The sphinx question is not just an inquiry about the meaning of a word. It is also about the thing itself, if any. It is, more precisely, about the meaning of the thing. Is this meaning given by the apex of the pyramid?



We can always ask a question of type *What is a meaning of "x"?* where  $x$  is a word and give an answer by considering the thing, the idea, the relation between the three, climbing at the top of the pyramid, and interacting with other pyramids.

Sometimes it also makes sense to directly ask *What is a meaning of  $x$ ?* with a naked  $x$ , without quotation marks. For example, we can ask: *What is the meaning of one?* We can answer this question, as we did in a previous paper ("Many 1", 2017), by describing the varied nature of the number one, the different ways it can be expressed and thought. We are then pointing directly at the top notion.

Now when we are asking *What is the meaning of life?* it seems that we want to have a more profound understanding of the notion, to go deeper. Inside it? But inside a pyramid there is only a mummy. Do we want to mummify life?

## 8. Dedication and personal recollections

I am very glad to dedicate this paper to Dany Jaspers for his 60<sup>th</sup> birthday. I really believe that philosophy, science, thought in general, is a collective activity, that develops by interaction between people. That's why at some point I decided to dedicate a great part of my life to the organization of congresses. And although it requires lots of energy, it is most rewarding.



Dany Jaspers at the 1st World Congress on the Square of Opposition  
Montreux, Switzerland, June 2007

After the successful launching of a first series of events on universal logic in Montreux in 2005, UNILOG, I decided to use again Montreux as a runway for the take-off of a second series of events, SQUARE, dedicated to the square of opposition. Dany came and that's how I met him.



Dany Jaspers (with Paul Dubouchet and Pierre Simonnet)  
at the 2nd World Congress on the Square of Opposition  
Corte, Corsica, June 2010

His applications of the theory of oppositions to colour theory were very interesting (see his 2012 paper “Logic and Colour”; a source of inspiration for my 2017 chromatic paper) and he was an invited speaker at the 2<sup>nd</sup> SQUARE in Corsica. He subsequently took part to the 3<sup>rd</sup> SQUARE in Beirut and the 4<sup>th</sup> SQUARE in the VATICAN.



Dany Jaspers (with Andres Bobenrieth)  
at the 3<sup>rd</sup> World Congress on the Square of Opposition  
Beirut, Lebanon, June 2012

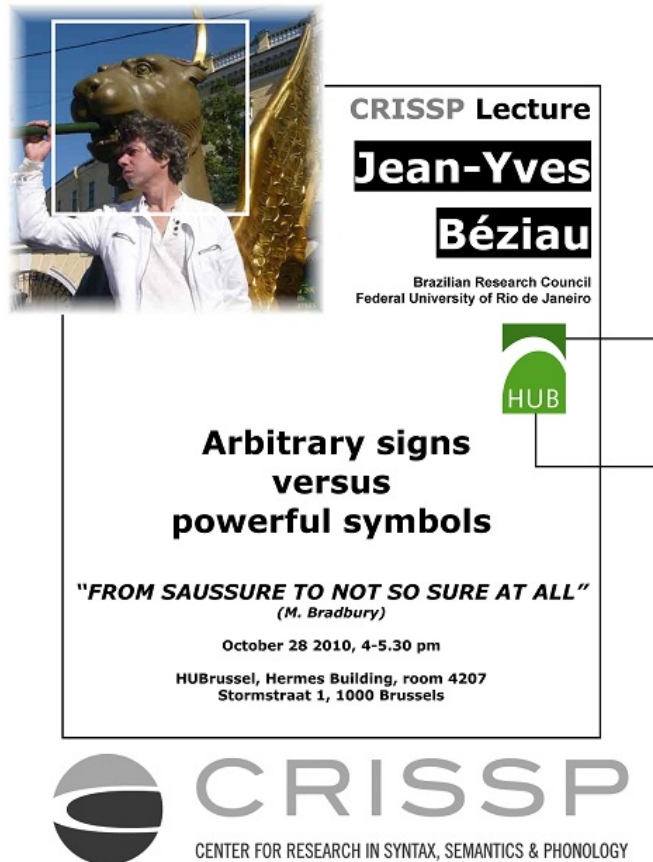
Dany also came to two editions of UNILOG: the 4<sup>th</sup> UNILOG that took place in Rio de Janeiro in 2013 and the 5<sup>th</sup> UNILOG organized in Istanbul in 2015 where he gave a tutorial on Logic and Colour



Dany Jaspers (with Jean-Pierre Desclés)  
at the 4<sup>th</sup> World Congress on Universal Logic  
Rio de Janeiro, April 2013

I myself took part to the two first editions of the event *Logic, Now and Then* he organized in Brussels (LNAT1, 2008; LNAT2, 2011).

I have been developing “meaningful” ideas along the years. I have organized two workshops related to semiotic questions, one in Neuchâtel in 2007 and one in Geneva in 2017 (part of the centenary of the *Cours de Linguistique Générale*), both related to the question of the arbitrariness of the sign (see the two resulting books: Beziau 2014 and Beziau 2018). And I gave a talk on this topic at Dany’s CRISSP research center in Brussels on October 28, 2010 entitled “Arbitrary Signs vs Powerful symbols - From Saussure to no sure at all” (he himself suggested the Bradbury subtitle).



**CRISSP Lecture**  
**Jean-Yves**  
**Béziau**  
Brazilian Research Council  
Federal University of Rio de Janeiro

**Arbitrary signs  
versus  
powerful symbols**

**"FROM SAUSSURE TO NOT SO SURE AT ALL"**  
(M. Bradbury)

October 28 2010, 4-5.30 pm  
HUBrussel, Hermes Building, room 4207  
Stormstraat 1, 1000 Brussels

**CRISSP**  
CENTER FOR RESEARCH IN SYNTAX, SEMANTICS & PHONOLOGY

At the time the sphinx was already there but I did not yet have the idea of the pyramid. It came to my mind only recently. I developed the ideas presented here in seminars in the first half of 2017 at the University of Brazil in Rio de Janeiro and later on when on sabbatical in France. I presented a talk on this topic December 14, 2017 at KU Leuven in the seminar of Hans Smessaert and Lorenz Demey. Thanks to them, to Catherine Chantilly, Daniel Parrochia and to my Brazilian students Vinícius Claro, Manuel Mouteira, for discussion and support.



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